The objective of this project is to design and develop equipment for slaughtering farm animals weighing less than 10 kilograms, which is easily transportable, easy to use, economically viable and allows the humane slaughter of animals in compliance with the World Animal Health Organisation (OIE) recommendations.

One of the main problems concerning emergency slaughter is having the right equipment to properly implement the OIE animal welfare recommendations. There are countries and situations where, although the intention is good, the poorly-designed available equipment and incorrect use of equipment cause even greater suffering. Furthermore, graphic media images of the farm slaughter process using poor equipment and methods results in heavy criticism by the general public. These factors and the variability in conditions between farms to deliver good animal welfare outcomes make enforcement of animal welfare laws very challenging. For this reason a need arose to develop portable well-designed industrial equipment. This has been designed with the necessary expertise and scientific and technical input to be able to monitor the whole animal management process from handling and moving animals through yards to the point of humane slaughter and confirmation of death.

Another very important issue is the requirement for the staff to have the necessary skills, experience, attitude and training to use the specially designed equipment to achieve good animal welfare. Therefore, equipment should be of efficient and simple design so that people can be easily trained to use it properly.

The prototype created was designed by veterinarians with extensive experience in animal welfare, taking into account the industry’s needs. Specifically, it can be used for farm slaughter of poultry, sheep, goats, newborn animals and pigs up to the age of weaning. If used properly, it will deliver the necessary animal welfare standards for humane slaughter. It will address ethical concerns by the public, is cost effective, safe for operators and supports biosecurity, environmental and aesthetic requirements.

Keywords: controlled atmosphere – emergency slaughter – gas.